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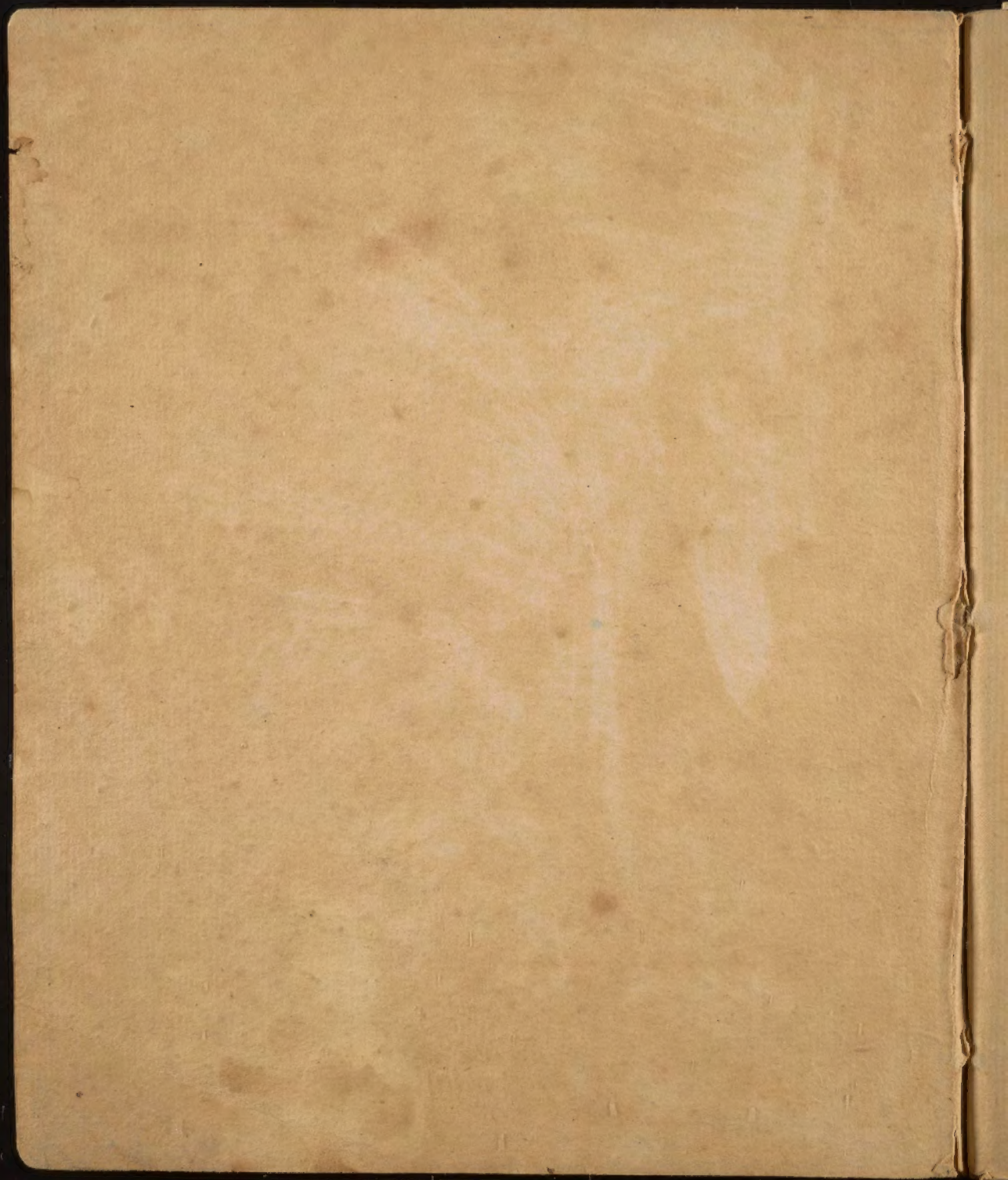
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16







Dreams cont<sup>d</sup>

Aliment 585

Hunger 615



(k) From what has been said of the partial excitement or waking state of one faculty, while others are asleep we may understand the reason why we are able to wake at any hour we please. This is most observable when we are about getting off on our journey at an earlier hour than our usual one of rising. It is owing to the memory ~~not~~ being kept from falling asleep by our strong desire to wake at the wished for hour. We have likewise from the history of Dreams that has been given why ~~but not~~ <sup>some persons</sup> compose poems, and write reasons in their sleep. It is owing to the wakeful state of the Understanding, with a small portion of the memory - when ~~poems~~ <sup>verses</sup> are composed - the memory is awake only for words. — go to p 568 v 0



a person who is awake, but depriv-  
 ed of the use of some of his faculties  
 by disease. — How differently does the  
 understanding <sup>alone</sup> operate in a dream,  
 to what it does in a person who  
 is bereft of every rational faculty  
 except the understanding — by an  
 attack of the palsy? — How differ-  
 ently too does, the memory act in  
 a dream, — to what it does in the  
 waking state! — we dream for instance  
 of every thing that related to a departed  
 friend — whom we see in a dream,  
 without once recollecting that  
 he has been dead perhaps for months  
 or years — This shows irregularity



~~The~~ But further - how differently do we judge of right and wrong, ~~and~~ and how differently do we act with respect to certain moral obligations in dreams, from what we do in a waking state. How often do we <sup>perpetrate</sup> offenses against delicacy, and other virtues <sup>in a dream</sup> at which we should have shuddered when awake! This depends <sup>total</sup> that part of the brain which is upon the sleep of the moral faculties, the seat of <sup>it</sup> while the rational faculties are in exercise it may depend upon their acting in an irregular & convulsive manner.

= And to its <sup>dreaming</sup> concentration in the dreaming faculties or part of the brain.

✓ I ~~said~~ have said that dreams are incoherent, hence we derive an argument in favor of the truth of the dreams recorded in the old & new testament. They are all incoherent, and all



as well as partial excitement  
of motion evidently to take place in  
those spots of the brain which are  
the seats of the different faculties of

the mind. In the case that has been mentioned  
it shows the memory to be but partially excited. It recalls  
the friend, but forgets his death. ~~It~~ <sup>It</sup> is very remarkable that

the images of things which are presented  
to the imagination are much more  
vivid in the dreams than in the  
waking state. — ~~many~~ <sup>from the senses</sup> ~~not~~ This ~~is~~ <sup>is</sup>

owing to an abstraction of excitement  
from the seats of the other faculties  
of the mind. ~~And may it not be an~~

~~consequence of the great increase of strength~~  
~~in the arterial system in a fever,~~

~~at a time when there is an evident~~  
~~diminution of strength~~ <sup>from</sup> ~~all~~



require divine interpretation to understand them. They were insensible even to the persons who devoutly hear.

It is equally remarkable that the Will acts with more force in the dreams than in the waking state, and probably from the same abstraction of the force of the ~~other~~ <sup>other</sup> ~~quiescent~~ <sup>or excursive</sup> faculties of the mind. This proternatural force of the Will appears in its producing fantastical visions in our Sleep. No such power

has ever been exercised over the seminal  
vesicles in the waking state. <sup>In sleep</sup> This is obvious  
~~to compare copulations~~ <sup>It is raised by a dream</sup>  
~~in public~~ <sup>awakened</sup>. ~~carried into domestic.~~  
Nothing more occurs in this increase

Nothing more occurs in this increase of the action or force of one faculty by the quiescence of another - than what happens in the senses - The loss or suspension of one of them is always followed by an accumulation of force in others.

+ Stewart the famous pedestrian traveller  
never dreamt <sup>in former</sup> after he began to live  
wholly on vegetables.



~~the senses of the body~~ ~~the~~ memory

✓ ~~superior~~ <sup>more active</sup> facts from 14.

Do we dream always? - This

is an important question, and leads

us to <sup>another</sup> ~~the~~ <sup>inquiry</sup> ~~question~~ <sup>that is</sup> of the

Sleep of Soul. It is certain ~~nothing~~

~~that~~ <sup>that</sup> ~~labouring~~ ~~people do not dream at all.~~

people who sleep soundly dream but

little, and that many people do

not dream at all. Mr Locke tells

us one instance of this kind, and

I knew another in a young woman

of 30 years of ~~age~~ <sup>in</sup> this city. <sup>+</sup> From these

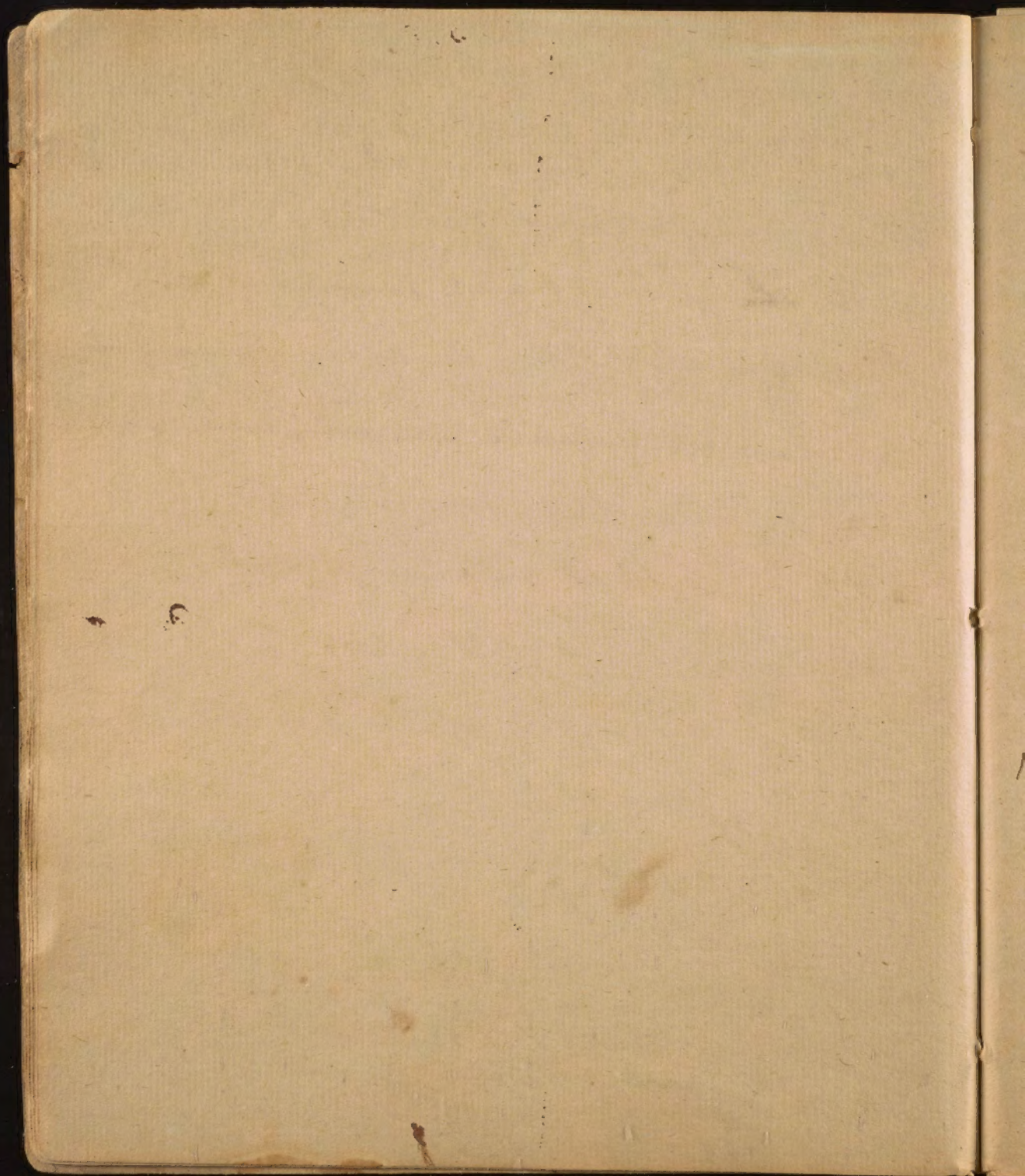
facts Mr Locke infers that the Soul sleeps

with the body when we ~~not~~ <sup>do</sup> dream,

- for to what purpose, <sup>says he</sup> should we spend

whole nights in thinking, and derive no







<sup>or Advantage</sup>  
 fruit from our thoughts? In answer to  
 this we are told that children lose all  
 the thoughts of the first three years of  
 their lives, and that many people retain  
 so few, and derive so little advantage  
 from their waking thoughts, that they  
 might as well be spent in sleep with-  
 out consciousness, as be wasted in their  
 waking state. — In answer to the first  
 objection I shall observe, that I <sup>Do not</sup> ~~deny~~  
<sup>admit</sup> that children have any thoughts to waste  
 before they are three years old, for  
 the whole of that time is employed  
 in learning a language, or <sup>e</sup>g. con-  
 nection between substances & signs  
 or words. — As to the 2<sup>nd</sup> objection,  
 it has no force — If men waste



✓ mechanical impressions only not mental  
analogous to Voice & Speech -



57<sup>th</sup> original contrivance of the  
their thoughts, it is no fault in the <sup>in</sup>an-  
= mal Economy, for our wise Creator ne-  
= ver made any thing - not even a thought  
to be wasted, or employed unprofitably  
upon any Subject. —

<sup>Sometimes</sup>  
believe that we ~~forever~~ <sup>constantly</sup> dream  
I ~~should have been glad to have~~  
without a consciousness of it the next  
day. This is owing to the ~~sound~~ <sup>perfectly</sup> healthy  
sleeping state of the memory which  
leaves the chaos of thoughts if have  
been excited in the night to perish  
in the ~~vacuum~~ <sup>But could</sup> of the brain. I should

as soon believe that an imperceptible  
fever ~~was~~ <sup>always existed</sup> in the ~~body~~ <sup>blood vessels</sup> do  
that unconscious thoughts in a healthy  
State. ✓ [I should have been glad of



✓ If dreams were not <sup>of a</sup> morbid nature  
it would call in question the perfection  
of the human body in its original  
state - I should be disposed to say <sup>th</sup>at  
the proof if ~~this~~ Dreams were  
essential to our existence - how blessed  
are they who ~~sleep~~ <sup>are</sup> wake no more -  
- not so - if dreams infect the grave.

for 9 out of 10 of them are sources of  
N misery to us. - It is remarkable that <sup>Dreams</sup> they  
are most common in the Decline of life when  
sleep is rendered ~~un~~ unsound from the  
numerous infirmities of old age for  
~~old people~~ <sup>old people</sup> dream a great deal. They are  
common likewise in youth where sleep is imperfect.



the aid of the perpetual stimulus of the  
 thinking faculties in ~~accounting~~ for  
 the continuance of an ~~animal~~ life in  
 sleep - but ~~very~~ could not be introduced  
 there consistent with the objections <sup>is</sup>.  
 I have made to the operations of the  
 mind going forward in healthy sleep  
 I conclude therefore with McLoche,  
 that the soul sleeps with the body in  
 perfect health & that Dreams are

always - morbid phenomena in the  
 system. This will readily be admitted if we ~~believe that~~  
 to be the effect of <sup>constant</sup> organisation of the brain.  
 that a fever was necessary to keep up  
 the circulation of the blood, as the  
 perpetual stimulus of unconscious thoughts  
 to keep up animal life. ✓



It has been observed that  
~~The truth of it is an awful lie~~, we  
are able to wake at any hour we  
please in the morning. How shall  
we account for this? — Why by  
admitting the dream to be so much  
excited by our desire to remember the  
hour of waking or rising before we go  
to bed, that it does not sink into sleep  
during the night. — The understanding likewise is  
often nearly <sup>impaired</sup> ~~impaired~~ — witness connected dreams. <sup>poetry made in dream</sup>  
[my own line]

✓ Dreams may be resumed when  
we wish it by retaining the same ~~the~~  
position of our bodies & head in bed  
in which they first occurred.

The Oblivion of our Dreams may  
be prevented by keeping our eyes shut  
for some time after we awake. They  
are often not remembered when we wake gradually.

In certain diseases a state of the mind, Dreams  
are mistaken for Realities. see De Quincey.  
Blackburn. many people, thus lose of Character  
for Reality. — E. Boudinot — &c







by a mischievous boy

✓ The stimulus of a pin in the back of  
a ~~pious~~ <sup>minister of the Gospel</sup> ~~Methodist preacher~~ - made him cry out  
in his sleep - "Oh! now I know what St.  
Paul meant by a thorn in the flesh." ⊕

⊕ Dreams are influenced further by ~~unintentional~~  
~~relationships~~ the subjects which have previously occupied  
the mind, altho they do not appear to be related to  
each other. - of this there are proofs in the  
experience of every body. By inquiry we shall  
find they ~~are~~ <sup>are</sup> related by former associations.

Dreams are most connected, when we  
~~hold~~ <sup>hold</sup> ~~congregations~~ <sup>congregations</sup> in them; Language  
diminishes the rapidity & irregularity of our  
thoughts. It is probably because Brutes  
have no language that they are unable  
to reason. Their inability to reason I  
said constituted the principal difference be-  
tween their minds, & the minds of the human  
species. - [Reasonable creatures - we rational only]  
In our dreaming of fighting we often



574 moderate degree of  
Dreams about eating. & a ~~very~~ <sup>cold</sup>

produces dreams of more intense sufferings  
from ~~it~~ <sup>it</sup>. But this connection between Dreams  
and certain impressions made upon the senses is  
happily illustrated by an anecdote in Dr Beattie's  
works. He tells us of a young <sup>officer</sup> ~~man~~ who went  
thru' all the forms of a duel in consequence of  
certain ideas excited in his mind by whistles  
-ring in his ear. He awoke at last from  
the explosion of a pistol which had been put  
into his hand & <sup>th</sup> he believed he had fired at  
his antagonist. ~~was~~ <sup>or irregular</sup>

But there are not only morbid ~~visions~~ <sup>or irregular</sup>  
in our Sleep. but certain morbid ~~visions~~  
actions from a pre-matural  
excursive motion in certain parts of  
the Brain determining an influx into



raise our fists, or feet to strike or kick our  
Antagonists. In Dreaming of making water - the  
will often stimulates the bladder in childhood  
so as to cause them to wet their beds. <sup>It is</sup> so in  
advanced life, & in old age - <sup>only suppose</sup> ~~from~~ the muscles of the  
bladder become too rigid for the will to move <sup>them</sup> ~~in~~ <sup>in</sup> sleep.

✓ Talking in our sleep is often connected  
with the waking state of the sense of hearing,  
and hence we may hold a conversation with  
such persons, and obtain from <sup>them</sup> a knowledge  
of all the secret transactions of their lives.  
This would not be the case - if their  
eyes were open - or if they had the use of  
their understanding - hence you see a  
new argument in favor of the Subserving  
of the different senses & faculties of the  
mind to each other.

+ This <sup>was</sup> done in this city to a lady a  
similar case recorded by Henrius de  
Herces - of a woman who thus obtained  
a knowledge of her husband's secrets.  
He was inconspicuous of what he said <sup>not</sup>  
<sup>being in</sup> 1581. ✓ Day.







+ ~~The~~ <sup>performances</sup> ~~Again~~ - One of the finest poems is  
the celebrated, but ~~unfortunate~~  
~~the poems of Mrs Robinson is said to be~~  
~~the "maniac"~~. It originated ~~the~~ had room  
saw a ~~man~~ deranged man the day before  
in the streets of Bristol, known by the  
name of "mad Lemmy". <sup>the afterwards</sup> At night she  
took a dose of opium, & in the ~~partial~~  
excitement of her mind, ~~but~~ dictated to her  
daughter that incomparable poem en-  
titled "the maniac"! The next day she  
had no knowledge or recollection of that  
~~what she had done~~ elegant performance.



connected with them <sup>enabled</sup> to <sup>insert</sup> ~~noted~~  
 sense, and finally <sup>not to discover</sup> ~~into~~ the cause of  
 a pleasant song. All this being done,  
 he suddenly started up, and to the surprise  
 of the company discovered ~~that~~ he knew  
 not ~~where~~ what he had been doing, and  
 that he had been asleep during the whole  
 time that he had passed with them. +

again —

~~It is very remarkable that these~~  
 Somnambuli never remember a single  
 thing they do in their sleep after they  
 awake — <sup>but</sup> and it is still more remarkable  
 that they remember in each <sup>fit</sup> ~~fit~~ of  
 bright waking, every thing <sup>in the wake of</sup> they did the  
 night before. This has been inferred  
 from the <sup>exact</sup> order with which they  
 their undertakings or retumatural, or



I shall hereafter mention a  
Case of a Lady exactly similar  
to the one I have read - induced  
by derangement.

had no son  
~~what she had~~



I have been much puzzled to ~~discover~~<sup>ascertain</sup>  
~~even a single conjecture~~<sup>as to discover</sup> into the cause of  
 this wonderful phenomenon in the operations  
 of the human mind, nor should I have  
 attempted to explain it ~~even~~<sup>but</sup> to deliver one, had I not met  
 with the following curious history of a  
 case in Connecticut ~~in~~<sup>late</sup> in a letter from  
 Dr Lathrop of Springfield, to the Rev<sup>d</sup> Dr  
 Stiles President of Yale College at New Haven.  
 This ~~letter~~<sup>case</sup> I hope will furnish me with at least  
 one ~~clue~~<sup>string</sup> of a clue to guide me into ~~the~~<sup>an</sup>  
~~some~~<sup>of the cause</sup> explanation of this singular fact. ✓  
~~For a~~ knowledge

The motions in the Lunnabuli and  
 in this patient appear indeed as if they  
 depended on two minds, but they may  
 be explained by supposing that they  
 were derived from preternatural, or

✓ Persons who talk in their sleep  
seldom remember <sup>of</sup> Dreams.

Barwin.



574  
~~exclusive~~ <sup>exclusive</sup> motions of different spots  
of the brain inhabited by one & the  
same mind. — V

You recollect I said formerly that  
every act of memory was produced by  
a repetition of motions in the brain  
exactly the same in degree & direction  
which first produced the idea or thought  
which is the object of memory.

may not  
" The reason why the actions performed  
in sleep, and in the paroxysms of the  
disorder I have described, ~~are~~ <sup>are not</sup> ~~remembered~~  
<sup>be</sup> remembered is, because <sup>a sufficient</sup> ~~no~~ force of im-  
-pression is <sup>not</sup> applied to reexcite the

Ideas which have been lost? or if  
a sufficient force <sup>to reexcite them perhaps</sup> be applied, it ~~is not~~  
may it not be  
directed to ~~the~~ a part of the brain <sup>wh</sup> it

when cured frequently  
✓ Madmen remember nothing of <sup>+</sup> w:  
passed when they were deranged, but when

they relapse, - they generally return to the  
former Subjects of derangement. E.g. a man

in the hospital who tho't himself an Ad-  
miral & ~~it is possible~~ resumed all his naval habits & Speeches.

to they do when drunk. <sup>They</sup> probably they re-

=member to they do, in the next drunken  
fitt. The reason why <sup>we</sup> do not remember

things sometimes is owing to excitement &  
emotion <sup>or below</sup> beyond the idea first lost, first

produced, ~~as~~ <sup>hence</sup> it occurs when <sup>we are</sup> not

seeking for it. — <sup>Kempfer</sup> says that he

was once intoxicated at a table in  
Persia by partaking of a substance called

Peganum which produced transports <sup>of joy</sup> he never  
felt before - but he forgot <sup>the signs of</sup> them all the next day.  
Involuntarily <sup>and by traps</sup> from one cause often revives



is not the seat of that part of the memory  
from whence the action or ideas that

are forgotten, were derived?

I shall mention <sup>and the help of latent memory</sup> two facts ~~formerly~~ <sup>which</sup> will

throw some light upon this sub-

ject. <sup>the remembrance of</sup> The ~~memory~~ of the efforts of several

of the Welsh language was excited by

a fever - and <sup>the remembrance of</sup> of my companion, whom

I ~~led home from~~ <sup>formerly spoke</sup> ~~supping with~~ <sup>Dr</sup>

Brown in ~~Edin~~ <sup>of the French language,</sup>

was awakened by a fit of drunkenness. In both these

cases memory was excited by a new &

powerful force, acting upon a long <sup>bragiant</sup> passive

part of the brain. - ✓

If the <sup>or thoughts</sup> actions ~~on~~ which are forgotten

in <sup>in limbo</sup> ~~partake~~ of the analogy of the Imagina-

tion and ~~lost~~ the Venereal Appetite,

from continuity of motion the Disturbance  
from a former cause. Miss R. Storer.

- hence we find in religious people  
that grief from the loss of a friend,  
often revives the <sup>anguish of</sup> repentance which  
<sup>painful sense of guilt</sup> characterized the commencement  
of their religious habits.



they will certainly ~~be excited by an~~  
~~unusual and preternatural force, and~~  
 that too, proportioned to the quiescence of  
 other faculties <sup>of the mind, & other</sup> ~~parts~~ of the brain.  
 It is no more wonderful to me than  $\gamma$ :  
 Linnambuli cannot recall the  
 thoughts and Actions of the night, <sup>without</sup> ~~then~~  
 relapsing to the Situation they were  
 in when they first occurred, than  $\gamma$ :  
 we cannot recall the vivid impressions  
 of the imagination, or the powerful  
 Stimulus of the Will on the Seminal  
<sup>which occurs</sup> ~~ex~~ vesicles in a dream in our waking  
 State. They can only be recalled by the  
 same force, acting in a dream upon the  
~~same part of the brain~~ <sup>same part of the brain</sup>. —

~~It is remarkable that None of the~~





None of <sup>580</sup>  
Actions performed by the Lomvambuli du-  
ring sleep fatigue them. This shows <sup>that</sup> they  
depend on preternatural or excessive  
excitement in the brain. We are  
never fatigued by the actions we perform  
in the waking state while we <sup>are</sup> excite-  
d by the stimulus of pleasant passions,  
or cordial drinks.

I would remark <sup>further</sup> that these emotions  
in the brain in Lomvambuli appears to  
differ from those which occur in com-  
mon dreams by being excessive but regu-  
lar - Those in common dreams are  
irregular and both excessive & deficient  
in force according as the excitement  
of the brain is above or below the  
sleeping point. - They resemble the  
excessive action of the arterial system

V There is one more fact with res:  
pect to dreams which remains to  
be explained, and that is why we  
so seldom dream of persons who  
are most dear to us. I never dream  
of each other only in <sup>the</sup> ~~the~~ beginning  
or declension of the passion of  
love. The late Mr R: informed  
me that he was 7 years under  
the influence of a strong attachment  
to a lady, during all which time  
he never once dreamed of her.

~~Intimate friends & Relations~~

The reason of this fact, I sus:  
-pose to be, that the imagina:  
-tion, and



~~the voice~~ 581. ~~after exercise~~  
~~in the air~~ ~~of the~~ ~~Day~~ ~~com-~~  
-pand with its excessive & irregular  
action in a fever. — ✓

After the explanation of the cause  
of Dreams which I have given, I need not  
detain you to prove that they have in  
ordinary cases <sup>no</sup> connection with su-  
-pernatural influence. It would be  
strange if <sup>a premonition of the</sup> ~~the~~ breaking of a cream jug,  
should be <sup>given in a dream</sup> ~~given in a dream~~ to the  
~~on the pleasure of a card to~~ to the  
mistress or maid of a family, and  
<sup>of armies</sup> ~~in~~ Generals and other important men-  
-bers of Society be left without the <sup>least</sup> ~~best~~ be-  
-nefit from them, in the most difficult  
conjunctures of human Affairs.  
Where Dreams & events have agreed,  
in 99 cases out of 100, I would ascribe

Memory are so worn down by  
constantly thinking of the beloved  
Object during the day, that no ex-  
citement or excitement are left  
in those parts of the brain in  
which memory & Imagin<sup>n</sup> are seated,  
for the Idea of the beloved Object  
to act upon. For the same reason  
friends when separated cannot recall  
each other's faces. The paralytic weakness  
here only in Imagin<sup>n</sup> not in the memory.

§ 82.  
Dreams, & actions in Dreams are at the  
not confined to the human species.  
we observe them in Dogs & horses.  
The former bark & the latter  
neigh in their sleep. Cows low in  
their sleep after losing their calves,  
and bulls & rams are said to  
discover strong marks of being  
agitated by Dreams during the  
period in which they feel the  
impulse of Venereal desires.



it to the same accidental coincidence  
 which takes place between ~~our~~ events  
 and our waking thoughts. <sup>D</sup> But let me  
 close altogether ~~an ancient~~  
 not ~~limit~~ ~~to~~ channel this which has  
 the ~~supreme~~ being  
~~even has~~ ~~providence~~ has in extraordinary  
 cases even in modern times acted on  
 the human mind. It is not my business  
 to determine when these cases occur, but  
 a man must renounce his powers of judging  
 and believing, who rejects them in all  
~~possible~~ cases whatever. ✖

✖. The business of a physician is to dis-  
 cover ~~not~~ <sup>now</sup> what is - not what is to come  
 from ~~dreams~~ <sup>visions</sup>. When they are more frequent  
 more distressing, - or more terrifying  
 than usual, they indicate an incipient  
 disease, and of course <sup>should</sup> suggest ~~both~~ to  
 the subject of them, & to <sup>a</sup> the physician

# Dreams in Phrenicula ~~too~~ indicate  
tonic action - They are ~~terror~~ -  
In Hysteria - direct debility - they are  
fear see -

<sup>further</sup>  
V It ~~seems~~ to equalize the ex-  
-citement of the system. It does  
this by collecting all its scattered  
fragment fragments first into the  
blood vessels, from whence it is  
<sup>afterwards</sup> dispersed to every part of the body.  
The recumbent posture of the body  
favours the equal distribution  
of excitement, hence we find  
+  
narrower to 585.



the necessity of temperance - exercise - or  
 evacuations, or other medicines, <sup>and</sup> ~~to prevent~~  
~~that disease from being~~  
 thereby to strangle a disease before it is  
 completely formed. ~~It~~

I need <sup>hardly</sup> ~~not~~ mention the <sup>Uses and</sup> final cause  
 or use of Sleep. It has been emphatically  
 called "Tired Nature's sweet restorer" by One  
 of the poets. - It renews every day's own  
 capacities, and sensations of pleasure, &  
 imparts every night a sweet oblivion  
 of many of the pains and ~~was~~ <sup>of</sup> all the  
 cares of life. The happy & the miserable  
 are therefore alike indebted to it. V

I ~~have~~ mentioned the Use of  
 Dreams formerly in speaking of the  
<sup>animal</sup> spirits which produced life. They  
~~never~~ exist in those habits, and

✓ They serve further (says Darwin) to diminish <sup>the</sup> ~~excitable~~ accumulated in sleep, and thereby to prevent Delirium in waking from the first impressions of stimuli upon the senses.

Here Gent. we take leave for a while of the functions & operations of the mind. Say not I have puzzled you with theories upon this <sup>history</sup> subject. I have delivered little else but a detail of facts ~~upon it~~ in describing <sup>the</sup> various functions & operations of the mind. Permit me to commend further inquiries into each of them in your future studies. I will not say that every disease is a compound of body & mind, but I will say, there is scarcely a general disease in which great advantages will not arise <sup>to you</sup> ~~from studying~~ <sup>a knowledge</sup> the laws of the mind, ~~as well~~ and that those physicians will always be most successful in curing ~~the~~ diseases who <sup>call in the aid of</sup> ~~apply the remedies to~~ the mind as an ~~additional~~ channel thro' which





They convey their Remedies to ~~the~~ the body.

+ Pain of all kinds, more especially  
where it affects the stomach or  
bowels, <sup>is</sup> much relieved by lying down.  
Even the pain of the tooth ache is  
mitigated by this ~~bad~~ position of  
the body. It <sup>relaxes</sup> ~~loosens~~ the muscles in a  
state to receive excitement. ~~They~~ <sup>by relaxing them</sup>

# goes p. 614 - living in Aliments  
Oculus Myzgia.



have 585

~~Subjects, I fancied that I might have~~  
~~to him that he~~ <sup>had</sup> ~~spoken frequently of~~  
~~Aliment - Digestion -~~ <sup>blood Lymph -</sup> ~~Respiration~~  
~~Secretion & excretion~~ ~~I~~ ~~and~~ ~~begged to be~~  
informed what he meant by them.  
He readily consented to instruct me  
in the nature of <sup>Aliments &c of</sup> each of those animal  
functions; and I shall now lay before

the information which I fancied I  
received from ~~It remains now that I~~  
~~deliver the physiology of each of those Subjects.~~  
~~I shall begin by detailing the history~~  
~~making a few remarks upon~~  
Lect: 24<sup>th</sup> of Aliment. Jan<sup>y</sup> 27. 1792

X This is of two kinds - viz: Animal  
and vegetable; both of which were  
intended for the support & use of  
man. - This I infer from the

p: 585

Before I proceed to the <sup>mention</sup> ~~history~~ of Man  
it will be necessary to take notice of  
of the opinion of some modern Phi-  
-losophers who have taken great  
pains to describe the gradual man-  
-ner in which man discovered  
under the influence of his Reason  
the instruments which were proper  
for his Support. They tell us  
he first fed upon berries - then  
upon the fruits of trees - then upon  
roots discovered by the accidental  
openings in the earth - lastly  
upon grains discovered in like  
manner by with roots by  
an accident. They tell us  
further that he as man



V by divine ~~inspiration~~ Revelation  
in the manner of preparing  
his Aliment by means of fire  
so as to render it more pleasant  
& nutritious, and that without  
Revelation - he ~~would~~ & his posterity  
would have been as deficient  
in the knowledge of Cookery as  
~~as~~ the brute creation. —

In a word - Gent: I believe that  
not only ~~was~~ the knowledge of the existence  
of a G<sup>d</sup>, and all the duties we owe to  
him, was derived from Revelation, but  
~~all~~ the Seeds or elements of all human  
knowledge - particularly language -  
Astronomy - Agriculture - Shipbuilding,  
and all the common mechanic Arts,  
were derived from the same source..  
as from the 26 letters of the

acquired his first <sup>knowledge of</sup> relish for animal  
food by a priest burning his fingers  
in turning a piece of flesh ~~that~~  
<sup>while it</sup> ~~was~~ was offering up a sacrifice  
upon an altar, & then thrusting  
his fingers into his mouth.

These opinions are all <sup>as absurd as they</sup> hypothetical  
~~they are absurd.~~

— The different kinds of Aliments  
proper for the nourishment of  
the human body I believe were  
pointed out to man immediately  
after his creation by a Revelation

— ~~so~~ without it, I believe he  
would have perished with <sup>famine</sup> want,  
or destroyed himself by poisonous  
products of the earth. I believe  
further — than he was instructed



Alphabet, we have been ena-  
-bled to compose all ~~modern~~  
a hundred different languages,  
So from the roots or elements  
of a few original communications  
by Revelation - all the discoveries  
in arts & Sciences have eman-  
-ated, by means of <sup>the genius</sup> ~~art~~

or reasoning powers of man,  
or by means of <sup>what is called</sup> Accident,  
which may be considered as  
a subordinate Species of Revelation.

With the same blind Affronting that the  
modern pagan philosophers suppose we advanced  
from <sup>wild</sup> berries fruits, to our present kind of  
Aliment, they suppose man advanced from a  
Savage, to a Civilized state - now the reverse of  
this is true. Man was created a civilized  
being & the first Communications of men were  
civilized. They <sup>degenerated</sup> ~~became~~ Savages from the loss of  
two things principally - Religion & Letters. This  
Degeneracy is easy and common.

From  
 2 By the example of our saviour  
 who partook both of fish, and  
 of land animals in his diet.



Structure of his teeth, and of the alimentary Canal - both of which are formed upon the compound principles of Carnivorous & granivorous Animals. 2 from the a diet consisting of either of them separately, <sup>frequently</sup> producing bad health, and 3 from the use of both being not only permitted, but enjoined by a positive command both in the Old & new testament. Let us not suppose that there is any cruelty in heaven in ~~making~~ permitting the life of one animal to be supported by the death of another. I am from it - <sup>The command to Peter</sup> ~~This precept~~ - "to slay & eat" like every other divine <sup>command</sup> ~~command~~

- from p: 588 -

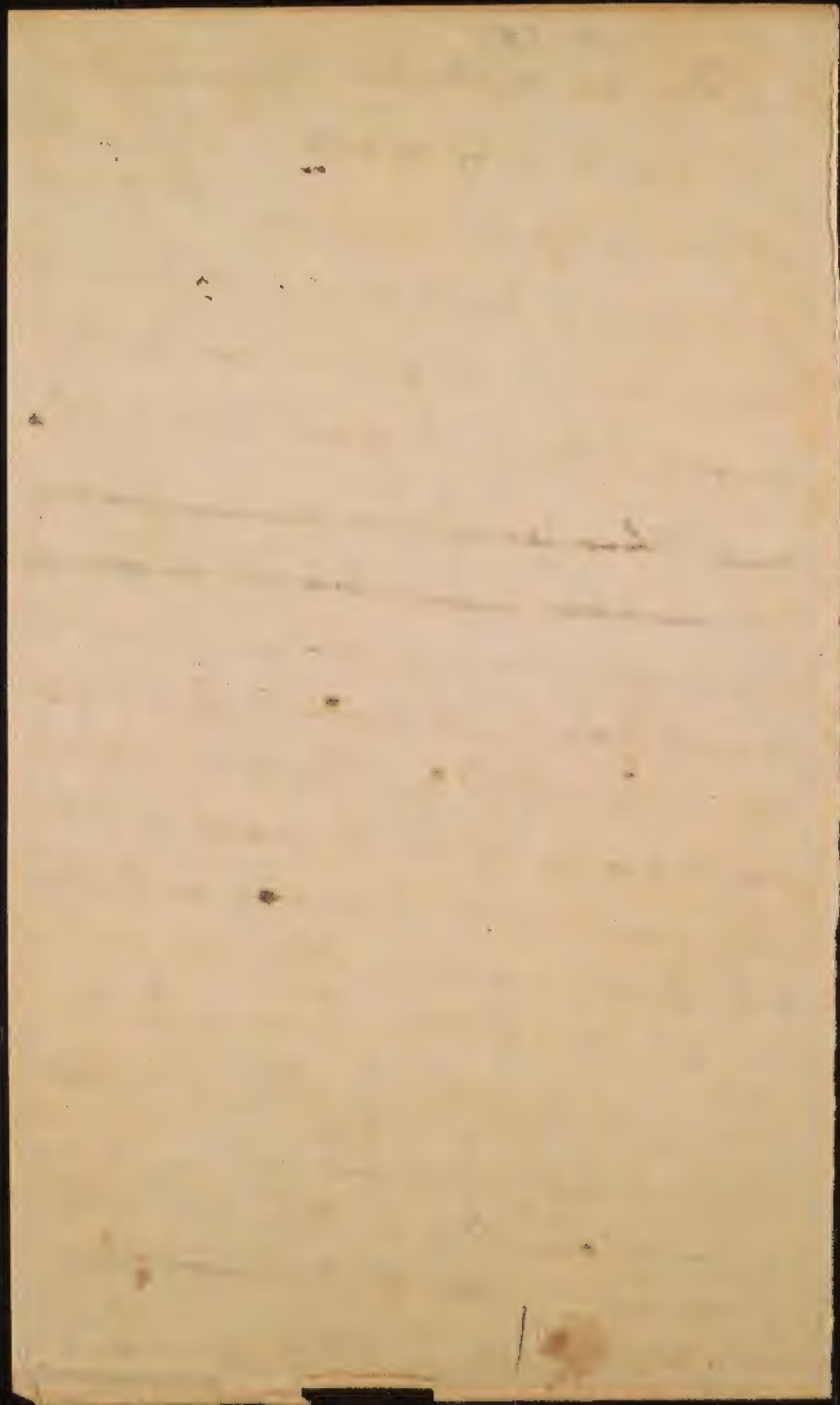
✓ But again - the destruction of  
animals by the knife or in any other  
way prevents the long protracted  
<sup>Death from disease, for we shall say hereafter y:</sup>  
<sup>some of the animals will kill for food, reason of their disease. It</sup>  
series of old age among them.  
<sup>likewise prevents</sup> for in this help<sup>less</sup> situation, they  
have can have no help like man  
from affectionate or interested  
relations or friends. <sup>From Turkish diseases</sup>  
~~Each other gave them land animals because~~  
~~left to die to consume air from putrefaction in water~~  
~~the said the ignorance of dumb~~  
Animals, they suffer nothing  
from the dread of death. <sup>hence</sup> Hence the  
destruction of them by the knife is  
attended with no mental anguish.  
They feel in parting with life  
only a momentary bodily  
pain. - go on to ✓ p: 588



is the effect of overflowing goodness, for  
 by the <sup>constant</sup> destruction of <sup>every</sup> the animals  
 which <sup>supplies</sup> ~~supply~~ us with food, room is  
 given for the existence of a thousand  
 more of the same species who come  
 forward and partake of the blessing  
 of life. - It is by the destruction of  
 animals for food, that the various  
 species of them have been preserved a-  
 live to this day, for had not their  
<sup>increase</sup> ~~destruction~~ <sup>this life</sup> ~~been cut short~~ in the  
<sup>imperfect & partial</sup> present state of cultivation of our  
 earth, they ~~would have~~ <sup>have</sup> perished  
 from the want of subsistence.  
 perished for long ago, <sup>all the</sup> ~~every~~ domestic  
 animals, <sup>which were kept</sup> ~~as in the~~ have existed  
 within the last 100 <sup>years</sup> alone, are taken

= They are probably ignorant of  
 the nature of death - hence the  
 glare which is exposed <sup>frequently</sup> most  
 to it of any wild animal from the  
 number of its enemies, is the  
 most playful of all animals,  
~~and this ignorance arises from~~  
~~the want of power for the property~~  
 - This ignorance arises from the  
 want <sup>of</sup> reason to draw inferences  
 from the death of other animals so  
 as to apply it to themselves. Hence  
 the words of Mr Pope are as truly  
 philosophical, as they are poetical  
 "The lamb &c. Even while  
 animals are dying, they are not  
 conscious that <sup>their</sup> pains, are  
 a previous step to the loss of their  
 existence. ~~go to V p. 188. &c.~~  
 I proceed further to unmask





[Turn back to p. 587.]

✓ In a more cultivated state of  
the earth, ~~and in a more improved~~  
~~state of morals and particularly~~  
~~of humanity~~ it is probable, animals  
will cease to <sup>compose</sup> be part of the food  
of man, but ~~until this~~ and that  
the products of agriculture will be  
so numerous & abundant <sup>as</sup> ~~that~~ to  
afford ample ~~substance~~ <sup>substance</sup> to all the  
tenants of the globe without obliging  
them to feast upon each other. ~~It~~  
~~is supposed~~ this change from animal,  
to a diet wholly vegetable, will  
probably ~~not~~ <sup>& peaceable</sup> cooperate in producing  
that mildness of temper which is  
the prophecies of the old testament



or into our calculation - the number of them almost exceeds calculation, - and yet not one of these would have ever seen the sun - or partaken of those pleasures <sup>animal or unusual</sup> <sup>ch</sup> they enjoy in a much higher degree than the human species <sup>ch</sup> constitute with them ~~perfectly~~ a

degree of happiness proportioned to the absence of other pleasures, Unless

the Ancestors of these animals had <sup>composed</sup> <sup>go to p: 587.</sup> constituted part of the food of man.

~~I mean further to remark that it belongs to the Materia Medica to point out the different modes of preparing animal food, and to mention~~

~~The most common animals <sup>ch</sup> will not be foreign~~ this food. But it belongs to my <sup>ch</sup> ~~travels~~ <sup>will not be foreign</sup> to say that

~~There is not a single quadruped,~~

apace as will take place in the  
reign of the prince of peace upon  
our Earth. Some late travellers into  
the interior parts of Africa tell us  
that the vegetable productions of the  
earth are so <sup>in the interior parts of Africa</sup> luxuriant ~~as~~ that  
the wild Beasts live upon them, &  
that it is no uncommon thing for  
parents to order their children to  
drive the Lyons from their barn-  
yards to prevent their eating up  
all the straw which they allotted  
for their domestic animals. <sup>Thus</sup> ~~for~~  
this we see the beginning of <sup>that</sup> those  
peace and <sup>order</sup> ~~happiness~~ ~~prosperity~~ ~~upon~~  
~~happy days which~~ ~~the~~  
~~our globe~~ which we are told are  
to succeed <sup>the past</sup> ~~its~~ present state of  
war & confusion in every part of  
our world. —



Bird - fish - insect - worm - or  
 serpent that exists, that has not  
 only furnished food, - but a luxury  
 in some age or country of the world.  
 - Let this teach us to bear with certain  
 animals which have been supposed  
 to be interlopers or intruders upon  
 our globe. They ~~are~~ <sup>are</sup> ~~were~~ all intended  
 for the food <sup>for benefit</sup> of man or of other  
 animals. Perhaps ~~the~~ <sup>the worship of</sup> ~~reason being~~  
 some of the most loathsome & contemp-  
 -tible animals <sup>which we read of</sup> ~~have been~~ <sup>the objects of</sup>  
~~divine worship~~ in some countries,  
 may have been <sup>permitted</sup> ~~overlooked~~ by provi-  
 -dence only to preserve their species  
 from extinction for the benefit

or  
V Bring in from p: 10 to 25 of letters  
on domestic Economy. at X

[~~Animal food is wild & domestic -  
The wild most easy of digestion.~~

~~Its qualities are much influenced  
by its modes of preparation. These  
are 1. Boiled - 2. <sup>ch</sup>are and nourishing in  
3. boiled. 4. roasted & fried 5. boiled -  
Preserved by  
6. salted, 7. smoked - 8. preserved in  
molasses - or sugar 9. dried in the hot  
sun. 10. by frost. -~~

~~Fish intermediate between  
Animal & veg: food in point of nourishment.~~



of man, for it is thus in a thousand instances that our benevolent Creator, <sup>overrules</sup> directs the ~~for~~ ignorance - the idolatry and follies of mankind in such a manner, as to render them subservient in different situations, or in successive generations to ~~their~~ <sup>the</sup> general and durable happiness <sup>of his creatures.</sup> ✓

~~Whole nations have lived on animal food alone. But they seldom enjoy perfect health or long life. I shall mention the diseases of animal diet as <sup>we come now to treat of</sup> in the pathology.~~

~~to eggs first +~~ <sup>turn over</sup> Vegetable aliment. however, vegetable food constitutes the nourishment of the greatest part of mankind. Whole nations live on Rice - Indian corn - and on

There are various methods of preparing Vegetables for Use. The fruits are eaten raw & these are most wholesome before dinner. The <sup>seeds</sup> ~~root~~ of the principal part ~~and most~~ of the roots are most wholesome and nutritious after they <sup>and the</sup>

partake of the action of fire, [with more they partake of it] provided they retain ~~their~~ ~~all~~ ~~one~~ ~~of~~ ~~the~~ ~~same~~ ~~texture~~ ~~of~~ ~~the~~ ~~more~~ ~~easily~~ ~~they~~ ~~are~~ ~~digested~~. To this there is but one exception - viz Cabbage. It digests most easily when moderately boiled. go to p: 26 #11"15.

+ Eggs likewise constitute a material part of the diet of some countries. They are, like milk of a compound nature. The yolk is of an animal - the white of a vegetable nature. They are known to be sound, by one end of them imparting a sense of warmth to the tongue. The Quack; Dancourville viz he learned



certain roots - and fruits of different  
 kind. The Cerealists, or those seeds w.  
 contain flour afford the <sup>nourishment</sup> ~~most~~ <sup>of</sup>  
 of the greatest part of mankind.  
 It belongs to the materia medica  
 to dilate fully upon this Subject.

Besides Animals and Vegetables  
 there is a substance which <sup>constitutes</sup> ~~composes~~  
 the food of several Nations, and of  
 every Individual that comes into  
 the world for the first year or 15 <sup>months</sup> of  
 life - This substance is Milk. It  
 consists of 3 parts - Cream - Whey -  
 & Cheese - The Cream is the vegetable  
 - the Cheese the animal part of the  
 milk. ~~It~~ <sup>Cows</sup> afford the most nourishment  
 go to p. 26 of No 15. <sup>the milk when fed on</sup>  
 a little grain, & well mixed & curried.

say on putrefaction has proved that  
the yolk under equal circumstances  
✓ The yolk putrefies sooner than the  
white - hence infers that the yolk is most  
proper for weak stomachs. Eggs are most  
healthy, when ~~moderately~~ <sup>about</sup> cooked. Presumed by  
with all ~~the~~ <sup>go to p 26/44</sup> ~~the~~ <sup>oil</sup> ~~to contain~~  
they are cooked by a heat below the boiling ~~point~~  
~~point. How? return to p 600 -~~  
~~with which man diluted and washed~~

down his food into his stomach. But in  
every age and country substitutes of a  
more cordial nature have been sought  
for by man. The <sup>fermented</sup> juice of the grape -  
and Beer obtained ~~by~~ from Barley &  
Other grains - and above all Ardent  
Spirits have been most commonly  
used in all parts of the world. - Where  
these could not be obtained a liquor  
obtained from Indian corn fermented  
with human Saliva - a spirit obtained  
from mare's milk - and even goat's  
blood have all been preferred to



and vegetable food - we use a large  
 quantity of certain substances called  
 pickles -  
 condiments. These are - being in  
 p. 26, 27 & 28 of <sup>Trin.</sup> spices - Ketchups - Mus-  
 -tard - horseradish - &c  
 Economy. <sup>afterwards</sup> ✓

~~The food when received into the mouth  
 is <sup>not</sup> divided by means of the teeth. There  
 are happily contrived for the purposes  
 not only of dividing, but triturating the  
 Aliment. It is moistened by the saliva  
 which is poured forth by means of the  
 process of mastication, <sup>in proportion</sup> ~~and is for~~  
 as it is <sup>parotid</sup> required from the sublingual  
 & maxillary glands. The tongue serves  
 the important purpose of moving the  
 food into such parts of the mouth,~~

simple water. But after all, water  
has maintained its character for  
greater salubrity than either of them.  
nay - more it has retained its charac-  
-ter <sup>in point of the</sup> ~~for the~~ pleasure <sup>it imparts</sup> ~~we derive~~ to our  
taste in the pure state of the system,  
above all the liquors which have  
been mentioned. Are we thirsty?  
nothing but water can allay <sup>our</sup> ~~our~~  
thirst ~~are~~ are we scorched with a  
fever? nothing but water can cool  
our tongues. ~~are~~ Have we been intox-  
-icated <sup>only</sup> or satiated with Wine - Beer or  
Spirits? nothing but water <sup>can</sup> ~~compose~~  
the clamors of our angry & disgusted  
Stomachs. I go to p: 26 - of n<sup>o</sup> 15 #



as to favour the Action of the teeth upon  
it. It afterwards protrudes it into <sup>the</sup> ~~the~~  
fauces from whence it passes ~~by~~ the  
tonsils into the ~~and~~ ~~Uvula~~ Velum palati  
and Epiglottis -  
assisted by the Action of a greater num-  
ber of small muscles into the Oesopha-  
gus - into the Stomach where it un-  
dergoes the process of Digestion. }

\* Man is the Creature of habit, and  
as he was intended to live every where  
he is happily accommodated by the  
Nature of his Appetite and Stomach  
to live upon every kind of Aliment  
varied in its origin - preparation &  
mixture into an almost infinite  
~~instead of being~~ <sup>the great</sup> ~~various~~ <sup>an</sup> ~~number~~ <sup>of</sup> ~~of being~~ <sup>considered as</sup>  
Variety of ways. There is no food  
Carnivorous, ~~or~~ herbivorous or granivorous animal, but  
an omnivorous animal.





of any beast but what man <sup>likes</sup> ~~can~~  
 both eat and even prefer. He has  
 in the Shape of Tartar thrust his  
 teeth into the Jugular veins of the  
 Goat, and <sup>drunken</sup> ~~draws~~ a plentiful meal  
 from his blood. <sup>many</sup> ~~many~~ nations of  
 Savages live upon raw flesh. ~~Whole~~  
~~Some~~ many upon fish only - The Pata-  
 gonians live wholly on horse flesh.  
 But further - The variety of taste in  
 Man has led him to feed with a  
 relish upon the food of wild birds &  
 beasts of prey. In the transactions of  
 the Society of Philadelphians at Bris-  
 bannola, there is an acc<sup>2</sup> of several  
 negroes who dug up putrid animals,

#  
All Aliment is nourishing in proportion

1 to its quantity of Sugar 2 its oil.

or glutinous matter. 3 its envelope ~~and~~ <sup>an</sup>

Ounce of Sugar contains the greatest<sup>a</sup> quantity of nourishment in it, than the same quantity of any other Aliment. The Fruits & vegetables of all kinds are nourishing in proportion to the quantity of Sugar they contain. The Sugar cane - Dates & figs & Raisins <sup>constitute</sup> ~~are~~ <sup>are</sup> in many countries the <sup>pleasant & wholesome</sup> ~~the~~ <sup>the</sup> principal part of the nourishment of man. The <sup>Parsnip</sup> ~~Carrot~~ Carrot - & Beef contain more sugar than the potatoes & hence they afford in a given quantity more nourishment..



and fed voraciously upon it. This

The same variety of appetite and dispo-  
<sup>to habit</sup> <sup>facility with</sup>  
<sup>nutrition</sup> <sup>of our</sup>  
<sup>which our</sup>  
 species ~~food~~ accommodate to different

kinds of vegetable food. The Persians  
 & other fruits -  
 live wholly upon Dates - The Arabians  
 on Apples - Great milk & water & of  
 Tournefort tells us that many of  
 the inhabitants of Constantinople live  
 during the summer on nothing but  
 Cucumbers. This versatility of  
 appetite however is not confined wholly  
 to the human species. Spalanzani  
 tells us that he taught an Eagle  
 to eat bread, and to <sup>a</sup> pigeon to  
 eat animal food. V

This has been demonstrated by an experiment. Two pigs of the same age were weighed, ~~and~~ on a certain day. The one was fed on parsnips - the other on potatoes. At the end of a month, the one that was fed on parsnips had gained many times more of weight than the one that was fed on potatoes. — But 2<sup>ly</sup> Oil whether vegetable or animal constitutes the second grade of nourishment in Aliment. The oil of Olives, & almonds affords nourishment to a great part of the Inhabitants of the Eastern countries. A pound of fat meat of any kind affords more nourishment than 4<sup>th</sup> of lean meat — Pork ~~feeds~~





is more nourishing than  
its ~~containing~~ more fat than Beef  
from its ~~containing~~ more fat, or  
~~a more nourishing~~ animal oil, & hence it is preferred  
as the most frugal aliment for  
Labourers, and persons who work at  
Iron works, & the like. — 3<sup>rd</sup> Glutinous  
or mucilaginous matters, contain  
3 A small quantity of food is thrown  
out of the <sup>this the Pythons</sup> stomach with more ease  
than a large quantity, & in a  
much shorter time. The smallest  
quantity of <sup>nourishment</sup> bread, in a given quantity  
of matter. Be all the different grains  
, roots, & many of the fruits abound  
with this mucilage or gluten. It  
is because they <sup>afford</sup> contain so little  
nourishment in proportion to  
this quantity of matter, that



Indians when they abound with provisions have no set times to eat.

but ~~they~~ their jaws are seldom idle.

Mrs Bartram tells us that they sometimes rise to eat in the night, and

he adds that it is because they eat

so constantly, that they have got the

credit of being so temperate when

among civilized nations, they are invited to public feasts, for

they seldom set down to a meal <sup>the</sup> with

an empty stomach. — The

constant action of a small quantity

of food in the stomach is more

favourable to <sup>the</sup> regular circulation,

of the blood and the regular excitement of the

nervous system and of course to

we are able to eat so much more  
of them, than we are of animal  
I suspect the inordinate & unwise  
use of spirits - Tobacco [see p: 3] food  
or of simple sugar. - The more  
~~we are not to suppose the~~  
sugar <sup>or oil</sup> they contain blended with  
this glutinous matter, the more  
nourishment they afford. This  
glutinous matter <sup>in vegetables</sup> may be developed,  
by certain chemical processes. ~~to~~ we  
obtain it from wheat & potatoes <sup>in the</sup> by  
form ~~means~~ of starch. - go to ~~the~~ <sup>p: 32</sup> ~~of~~ ~~the~~  
#



good health, than the Alternate  
Languor and excitement which follows  
an empty Stomach, & a plentiful  
Meal. — However salutary this  
simple & natural mode of eating  
may be, the business, — duties, — and  
necessities of adult and civilized  
life, have made it necessary to submit  
to regular meals. It remains then  
only to decide, — how can these be  
divided to the best advantage. I an-  
-swer by adhering as nearly as possible  
to the dictates of nature, and taking  
three or four meals a day. The  
heavy and animal part of our  
food is usually taken in the





609  
middle of the day, — but this is by  
no means proper, — for the labor or  
study which follow it are very hurtful  
to digestion as I shall say hereafter.

— The principal meal should always  
be made in the evening after the  
business of the day is over. It is then  
the body enjoys most rest, and it is

then the mind is most free from  
distracting <sup>the pursuit of business &c</sup> ~~the~~ <sup>a cheerful</sup>  
care, and ~~the~~ mind as I shall say

hereafter acts <sup>powerfully</sup> upon the stomach in  
promoting digestion. The evening is

moreover more <sup>suited to the</sup> ~~appropriate~~ pleasures

of Society. The Romans understood

this the truth of all the facts that  
have been mentioned — hence this

✓ This has been ascertained very accurately  
in many animals. <sup>29.</sup> An elegant  
which belonged to the King of the two families  
eat 100 of straw - one loaf of bread - and  
two or three aromatic balls every day. W.  
these he took drank 200 gallons of water  
every day in summer & 100 in winter.  
A horse will not preserve his flesh upon As than  
It is more difficult to ascertain what  
layer of hay in a day. The tiger <sup>or</sup> ~~is~~ <sup>of</sup> ~~his~~ <sup>flesh</sup> species.  
Quantity is most suitable for man. —

of water. Had very fetid stools. —

+ and all men require more food, and liquids in winter than in summer.



Principal meal was always in the evening.

What Quantity of Aliment is proper in the course of a day? <sup>It</sup> ~~This~~ must be different according to the age and employment of individuals. A child requires more in proportion to an adult, <sup>its size than</sup> ~~than~~ and an old man requires more than a middle-aged man, for food is one of the <sup>principal</sup> stimuli which ~~supplies~~ <sup>supports</sup> old age; Labouring people moreover require more than those who lead indolent <sup>lives.</sup> ~~lives.~~ The quantity <sup>of food</sup> too should be regulated by its quality - for half the quantity of animal food

V The Chinese on *Wij* of *Ris*. -



will go further than double the <sup>common</sup> quantity of vegetable - and <sup>half the quantity of</sup> ~~a great part~~ of sugar will <sup>in part</sup> give more strength & nourishment than ~~the~~ double the quantity of animal food. - <sup>of the</sup> ~~small~~ <sup>common</sup> ~~cases~~ food which we take every day, & including artificial liquors (which all contain nourishment) ~~pre~~ said to be necessary for a healthy - active - or labouring man. <sup>Here</sup> But men require this quantity. The Turks according to Volney enjoy good health upon only ~~half~~ of aliment and this of the most insipid vegetable nature. From 4 to 6 I believe would be sufficient for most men. Habit

✓ Perhaps <sup>eating</sup> ~~eating~~ is less necessary to  
nourish <sup>the body</sup> than to support the action  
of the system by its constant stimu-  
-lus upon every part of the body <sup>this</sup>  
the medium of the stomach. If this  
be admitted, a few ounces of food of a  
solid insoluble & stimulating qua-  
-lity will support animal life in  
comfortable circumstances more  
than as many pounds of more  
nourishing, <sup>but</sup> less stimulating  
food. That it is the case, I infer from <sup>the absence of the stimulus</sup> its  
<sup>food</sup> being so often supplied by other stimuli. I give  
a fever which depends on <sup>stimulus</sup> ~~excess~~  
producing excess of action in the arterial  
system, <sup>and of course sufficient action</sup> ~~renders food wholly~~  
in all parts of the body, renders the



will make that quantity agreeable,  
and it is habit only that makes more  
necessary. ~~It~~ One rule of great consequence,

never to eat - if you deliberate whether you shall eat  
# <sup>or not - if you wish - as your appetite</sup> There have been many disputes

whether man should take his food  
hot or cold. It is peculiar to the  
human species only to eat warm food.

It is certainly more savoury in  
this state. Habit soon makes it  
wholly inoffensive if it was originally  
contrary to nature - but I am  
disposed to believe that this is not  
the case. The Indians prefer warm  
to cold food. ~~It~~ When taken cold  
it soon acquires the temperature  
of the stomach, and it is seldom

Stimulus of Aliment wholly unnecessary,  
so hence persons live many days & even  
weeks in a fever without taking an ounce  
of nourishment. The same may be  
said of other Stimuli - particularly  
of the Contagious - they supply (as I  
know from experience) the stimulus  
of food on the system - thinking,  
of the stimulus of violent, but  
<sup>temporary</sup> ~~short~~ bodily ~~but~~ exertion have the  
same effect. But there are many instances

of life being supported by Substances which  
act by their stimulus only in the stomach  
without any nourishing matter in them.  
Several of these were mentioned in the  
lectures on Animal life. Baron Humboldt  
related a fact of a tribe of Indians of S. America  
living for 3 months on clay with ~~and~~ with  
a small quantity of Rice. During a famine he  
mentions likewise another tribe of lived chiefly on  
Resins. ~~But~~



tation so hot as to be beyond the  
temperature of the body. — ~~at~~ where  
it is, the ~~the~~ tongue — mouth — and  
throat soon lose ~~their~~ from habit  
their sensibility to it. go to p. ~~13~~ <sup>13</sup> ~~12~~ <sup>12 1/2</sup>

Is it proper to drink frequently  
frequently or much  
or much during the time <sup>of</sup> our meals?

— I answer — no — and that for  
the following reasons: drinking  
frequently either blunts our appetite,  
if the liquor be weak, & increases  
it if the liquor be strong, such as wine  
both of which should be avoided  
at our meals. & 2 A large quan-  
-tity of liquor washes the food out  
of the stomach before it is completely

of Map & Resin serve the same purpose in  
certain hibernating Animals. go to p: 612 #  
Denying in using unsuitable matters  
for horses - promote Distention - Why worse in  
winter?

~~V For the same reason that I condemn  
drinking frequently at our meals, I con-  
-demn the absurd practice of drinking wine  
& bitters before dinner.~~

[Both of which are nourished originally  
by vegetables. These are composed of Air  
& water, - so  $\frac{1}{2}$  Air & water are the foundation  
of all the Aliment of all the Animals in  
the World.]



digested. Temperate men should not  
 drink till they have finished  
 their meal. There is a more inti-  
 mate connection <sup>with health</sup> with this practice  
 than is generally imagined. &

The same objections apply to our  
 taking wine and bitters, or to  
 drinking before our meals. The Indi-  
 ans avoid this practice with the ut-  
 -most care. —

On what does appetite depend?

Dr Boerhaave says 1<sup>o</sup> on the action of the  
 internal coat of the Stomach on itself, 2<sup>o</sup>  
 on the effusion of ~~phlegma~~ bile & the stimulus of  
 the gastric juice on the stomach, & 3<sup>o</sup>  
 on the reliques of the last meal sti-  
 -mulating the stomach. I grant there  
 may be a morbid appetite from <sup>vitiating</sup> bile

upon each other, nor by the remains  
of food left in it.

this point  
Dr Haighton supposes <sup>it</sup> depends  
connected with a peculiar Sympathy  
of the whole System with the Stomach,  
~~the relaxation invites a certain~~  
calling for a recruit of its wasted matter.  
~~degree of excitement in the stomach:~~  
\* It is possible the gastric juice may  
act upon it ~~not~~ in this plate, and  
occasion the sensation of hunger. If  
the <sup>hunger</sup> ~~appetite~~ be not gratified, at its  
ordinary, & customary hour, <sup>of increasing,</sup> it ~~soon~~  
ceases ~~to~~ for a while to give us any  
pain - nay, we lose our appetite



61 - also frozen tape worm  
~~is~~ gasteroenterica stimulating stomach, but  
natural

hunger I believe is not excited by <sup>it</sup> ~~with~~  
nor yet, by the attrition of the parietes of the stomach  
of food. Vesalius tells us that he once

dissected a soldier who had been noted  
for his gluttony, in whom the gall  
bladder emptied itself by the ductus  
communis directly into the stomach.

The bile here was probably the cause  
of his preternatural appetite. But  
in ordinary cases ~~the~~ appetite is  
excited when the stomach is empty  
and relaxed to a certain degree w.<sup>ch</sup>

I shall call the hungry point. when

the relaxation descends below the  
<sup>hungry</sup> point, anorexia or want of appetite  
takes place - ~~to~~ It is removed only  
by exciting the stomach, & raising

for a while altogether. This may be induced  
by one of two causes. 1 a relaxation of the  
stomach below the point of <sup>or</sup> hunger, &  
2 ~~the~~ It may arise from a <sup>successful</sup> reaction of the  
stomach to overcome the flaccidity of the  
Gastric Juice. This victory however of the

stomach is generally short lived. It soon  
sinks into debility relaxation again. ~~then~~ <sup>when</sup>

hunger returns with more violence. I am  
there is a curious fact of <sup>symptom</sup> which <sup>arises in</sup>  
~~disposed to adopt the other explanation of this~~  
the yellow fever which shows the influence of the latter  
~~fact.~~ The stomach we know suffers principally  
in this yellow fever.

disorder. Towards the close of that  
disease, we sometimes observe a <sup>soon</sup> voracious  
Appetite. If this voracious appetite goes off, <sup>the</sup>  
the patient ~~and~~ often recovers - owing to ~~its~~  
the ~~weak~~ stomach retaining life and to  
react upon the gastric juice, but if it does  
not go off in a day or two, the patient  
dies, owing probably to its vital functions  
being impaired beyond the point of reaction.



616  
it up to the point of hunger. [I should  
it be asked why is a certain definite  
degree of relaxation attended with the  
sensation of hunger - I answer that  
it must resolved into the same <sup>will</sup> act of  
the duty which connected pain ~~and~~  
~~pleasure~~ with certain degrees of relax-  
ation in other parts of the system.]

The sensation of hunger is when it is  
carried to a certain height a most acute  
& distressing one. <sup>It vitiates the taste.</sup> It changes the temper-  
-it affects the moral faculties - it is  
said to break thro' ~~stone~~ <sup>stone</sup> walls, - it has  
even done more - it has lead men  
to murder as well as to steal - it  
has driven <sup>even</sup> women to kill & eat their  
own children - <sup>But this is not all</sup> ~~and finally it has~~

✓ The sense of hunger is suspended by such things as elevate the stomach above the hungry point. These are Opium - Tobacco, and the food of certain Aliaments, while those stimuli which raise it to the hungry point create or invigorate <sup>it</sup> the appetite. These are moderate joy - mountain air & gentle exercise - The effects of Joy appear in the appetite which is often excited by agreeable convivial society. Sometimes the sense of hunger is suspended by the ~~comp~~ stimulants which induce it being overpowered by other stimuli particularly great exertions of the understanding. Lord Mansfield felt neither hunger nor thirst while he sat upon the bench during the longest trials. One Reason why Judges are often afflicted with the gravel & stone is because the exercises of their mind prevent their feeling the stimulants of their Urine. - turn over to p. 618. #



It has  
 led men to feed upon their own flesh.  
 After shipwrecks, sailors have often been  
 taken up who have gnawed their own  
 shoulders for subsistence. —

That a certain degree of relaxation in  
 the stomach is the <sup>ordinary</sup> cause of hunger, differs  
 from the effect of certain papers upon  
 it. It is suddenly suspended by grief-  
 fear - shame & the like. Now these  
 act by inducing debility below the  
~~and cannot be supposed to act on any fluid~~  
 hungry point. They resemble those  
~~in the stomach~~ directly debilitating causes I formerly  
 mentioned which prevent sleep by  
 reducing the system below the point  
 of sleep. Again - the appetite is often  
~~excited by moderate joy. It is not~~  
~~lost with pleasure in an agreeable~~

It is mentioned by Cuvier. Robust & young perish soonest by it. ~~It~~ induced longest after vegetable abstinence.

It is possible after a certain time the gastric or some other juice of the stomach may by its ~~secretion~~ becoming morbid ~~of some~~ ~~stomach~~ - ~~all~~ the stomach, & thus increase the sense of hunger. ~~It~~ It is remarkable that hunger produces uncommon excitability of system - and of eating a <sup>large</sup> ~~common~~ meal. After long fasting ~~very~~ ~~often~~ <sup>has</sup> often induced sudden death. The

famous poet Otway died immediately after eating a loaf of bread after fasting. But ~~another~~ <sup>another</sup> ~~was~~ <sup>was</sup> a small meal ~~changes~~ <sup>changes</sup> the system after long fasting. Oysters in ~~the~~ <sup>the</sup> ~~best~~ <sup>best</sup> ~~broth~~ <sup>broth</sup> a young Dr. ~~for~~ <sup>for</sup> several days. Hunger is greatly increased by oxygen - and by high & dry situations - mountains. Hunger may be suspended or satisfied

by Opium - Tobacco - and many other stimulants which raise the stomach above the hungry point. - also by smelling food too long - hence we eat most at simple meals, or when only a little is set before us at a time. Hunger may further be suspended by any thing that powerfully affects the passions or understanding. One



company, when we can not relish food  
 if we sit down to our tables alone. I in-  
 fer further, that the cause I have assigned  
 is the <sup>principal</sup> ~~main~~ One - from the effect of  
 a pure air - and gentle exercise is  
~~restoring or increasing the appetite~~  
~~It from the effect of to remove all those~~  
~~causes which impair it (to be men-~~  
~~tioned hereafter) all of which act by~~  
~~reducing the appetite below, or raising~~  
~~it above the hungry~~  
~~top light (so as to induce thirst)~~  
 where is the seat - and

What is the cause of thirst? Its  
<sup>& throat</sup>  
 seat I believe is in the fauces. I infer this  
 from its being allayed frequently by  
 sucking certain sweetened fruits, or by  
<sup>only</sup> washing the mouth with cold water.  
 Its causes <sup>are</sup> ~~from~~ a certain animosity

Stimulus here overcomes another. I have  
in my lectures on animal life supposed that  
the sense of hunger in man when he  
confronted face to face with his maker on  
Mount Pisra, was suspended wholly by  
the powerful & delightful sense of the  
Divine presence upon his mind. I men-  
-tioned formerly that Lord Mansfield felt  
neither hunger, nor thirst in the trial  
of the longest causes. — Bridges do not  
feel stimulus of Urine from the same cause.  
Capt. Bligh felt no thirst, nor hunger in his long  
and dangerous voyage while his men were suffering &  
most <sup>exquisitely</sup> from both.  
This relaxation becomes the invi-  
-ting cause of a certain degree of  
excitement.

# Hunger is suspended in certain animals  
by balls of mops & Rosin during the winter.  
In the spring they are voided whole.  
Chap. tall vol. 1  
p. 109



Stimulating the vessels of the fances. This  
 anisomy may ~~depend upon~~ <sup>be either</sup> general or  
partial. It is general in fever - and  
 in those cases in which there is long  
 abstinence from <sup>where</sup> stimulating drinks - or an  
 anisomy has been retained in the  
 blood by a suppression of urine. It is par-  
tial when it is excited by salt meat,  
 or any acid substance <sup>or saline</sup> & acts upon the  
 fances. - a 2<sup>nd</sup> Cause of thirst is <sup>relaxation</sup> debility  
 or a certain state of <sup>being debility</sup> weakness in the  
 vessels of the fances which may be called  
 by the thirsty point. This occurs frequently  
 in the bests from artificial causes particularly  
 1 fear. all men feel it more or less be-  
 fore and during the time of battle. 2 from  
opium pain - which induces in <sup>large</sup> thirst. After it induces <sup>Depression of the system.</sup> debility.

V The more completely it is thus divided, the  
easier it is digested. 45 grs of flesh well mastic-  
ated were swallowed in a tube. 45 <sup>grains</sup> not masti-  
cated were likewise swallowed.  
- In the usual time of digestion 18 of the  
former were dissolved, & but 4 of the latter.  
Spalanzani.

See Ann:哲學 book p. 32 for excellent  
remarks on the teeth. - next year. -



3 From Opium & Digitalis - and many other narcotic substances which do not act on the ~~brain~~ <sup>brain</sup> ~~panes~~. They produce thirst only when they ~~produce~~ <sup>depress</sup> ~~induce~~ debility, or reduce the system to  $\frac{1}{2}$  <sup>1</sup> thirsty point. — Lect. 25

The food ~~then~~ <sup>before it is</sup> received into the stomach is first divided by means of the teeth. These are happily contrived, not only for the purpose of dividing, but of triturating the aliment. It is moistened by the saliva which is poured forth by means of the pressure of mastication in proportion as it is required, from the parotid - the sublingual - & maxillary glands. — The tongue serves the important purpose of moving the food into



